8. **CLAIMS APPENDIX**

Claims on Appeal

1. (canceled)

2. The method of claim ~~55~~ 1 wherein the mammal is human.

3. (canceled)

3 ~~4~~. The method of claim ~~55~~ 1 wherein the anti-ErbB2 antibody is a growth inhibitory antibody effective to inhibit the growth of SK-BR-3 breast tumor cells *in vitro*.

4 ~~5~~. The method of claim ~~55~~ 1 wherein the anti-ErbB2 antibody induces cell death when applied at an effective concentration *in vitro* to SK-BR-3 cells.

5 ~~6~~. The method of claim ~~55~~ 1 wherein the anti-ErbB2 antibody induces apoptosis when applied at an effective concentration *in vitro* to SK-BR-3 cells.

7. (canceled)

6 ~~8~~. The method of claim ~~55~~ 1 wherein the tumor is cancer.

7 ~~9~~. The method of claim ~~8~~ 6 wherein the cancer is selected from the group consisting of breast, ovarian, stomach, endometrial, salivary gland, lung, kidney, colon, colorectal, thyroid, pancreatic, prostate and bladder cancer.

8 ~~10~~. The method of claim ~~9~~ 7 wherein the cancer is breast cancer.

9 ~~11~~. The method of claim ~~10~~ 8 wherein the breast cancer overexpresses ErbB2 at a 2+ level or more.

10 ~~12~~. The method of claim ~~11~~ 9 wherein the breast cancer overexpresses ErbB2 at a 3+ level.

11 ~~13~~. The method of claim ~~12~~ 10 wherein the breast cancer is a metastatic breast cancer.

12 ~~14~~. The method of claim ~~12~~ 10 wherein the antibody has a biological characteristic of a 4D5 monoclonal antibody (ATCC CRL 10463) such that the antibody shows a growth inhibitory effect on SK-BR-3 cells in a manner that is dependent on the ErbB2 expression level and/or blocks binding of monoclonal antibody 4D5 to ErbB2.

13 ~~15~~. The method of claim ~~14~~ 12 wherein the antibody binds essentially the same epitope as a 4D5 monoclonal antibody (ATCC CRL 10463).

14 ~~16~~. The method of claim ~~14~~ 12 wherein the antibody is the monoclonal antibody 4D5 (ATCC CRL 10463).

15 ~~17~~. The method of claim ~~14~~ 12 wherein the antibody is humanized.

16 ~~18~~. The method of claim ~~17~~ 15 wherein the antibody is selected from the group consisting of humanized antibodies huMAb4D5-3, huMAb4D5-4, huMAb4D5-5, huMAb4D5-6, huMAb4D5-7 and huMAb4D5-8.

17 ~~19~~. The method of claim ~~18~~ 16 wherein the antibody is humanized antibody huMAb4D5-8.

18 ~~20~~. The method of claim ~~55~~ 1 wherein the antibody is an ~~antibody fragment~~ antigen binding fragment of said antibody.

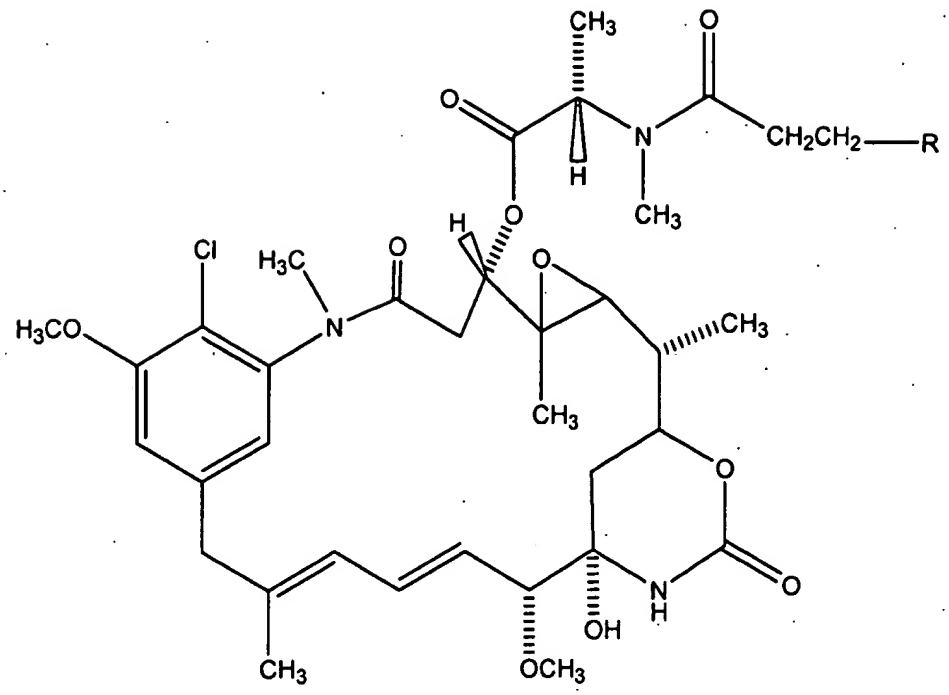
19 ~~21~~. The method of claim ~~20~~ 18 wherein the ~~antibody~~ antigen binding fragment is selected from the group consisting of a Fab, Fab', $F(ab')_2$, F_v fragment, diabody, linear antibody, and single-chain antibody molecule.

22-23. (canceled)

20 ~~24~~. The method of claim ~~55~~ 1 wherein the maytansinoid is a maytansinol ester.

21 ~~25~~. The method of claim ~~24~~ 20 wherein the maytansinoid is a C-3 ester of maytansinol.

22 ~~26~~. The method of claim ~~25~~ 21 wherein the maytansinoid is DM1 having the structure



wherein R is SH.

23 ~~27~~. The method of claim ~~55~~ 1 wherein the antibody and maytansinoid are conjugated by a bispecific chemical linker.

24 ~~28~~. The method of claim ~~27~~ 23 wherein said chemical linker is N-succinimidyl-4(2-pyridylthio)propanoate (SPDP), succinimidyl-4-(N-maleimidomethyl) cyclohexane-1-carboxylate (SMCC) or N-succinimidyl-4-(2-pyridylthio)pentanoate (SPP).

25 ~~29~~. The method of claim ~~55~~ 1 wherein the antibody and maytansinoid are conjugated by a linking group selected from the group consisting of a disulfide, thioether, acid labile, photolabile, peptidase labile, and esterase labile group.

26 ~~30~~. The method of claim ~~29~~ 25 wherein the linking group is a disulfide or a thioether group.

27 ~~31~~. The method of claim ~~30~~ 26 wherein the linking group comprises a disulfide group.

28 ~~32~~. The method of claim ~~55~~ 1 wherein the conjugate comprises 1 to about 10 maytansinoid molecules per antibody molecule.

29 ~~33~~. The method of claim ~~32~~ 28 wherein the conjugate comprises from about 3 to about 5 maytansinoid molecules per antibody molecule.

30 ~~34~~. The method of claim ~~55~~ 1 further comprising the administration of a second antibody which binds ErbB2.

31 ~~35~~. The method of claim ~~34~~ 30 wherein the second antibody comprises monoclonal antibody 2C4 (ATCC HB-12697) or humanized 2C4.

32 ~~36~~. The method of claim ~~34~~ 30 wherein the second antibody is humanized antibody, huMAb4D5-8.

33 ~~37~~. The method of claim ~~55~~ 1 wherein treatment with the conjugate is followed by treatment with an unconjugated anti-ErbB antibody.

34 ~~38~~. The method of claim ~~32~~ 28 wherein the conjugate is administered weekly at a dose of 0.1 to 10 mg/kg body weight.

35 ~~39~~. The method of claim ~~38~~ 34 wherein said administration is followed by a dose of 0.3 mg/kg body weight approximately 10 weeks later.

36 ~~40~~. The method of claim ~~33~~ 29 wherein the conjugate is administered weekly at a dose of 1 to 3 mg/kg body weight.

37 ~~41~~. The method of claim ~~40~~ 36 wherein said administration is followed by a dose of 0.3 mg/kg body weight approximately 10 weeks later.

38 ~~42~~. The method of claim ~~55~~ 1 wherein the conjugate is administered weekly at a dose of 0.1 to 5 mg/kg body weight for 4 to 6 weeks, followed by maintenance treatment with unconjugated anti-ErbB2 antibody.

38

39 ~~43~~. The method of claim ~~42~~ wherein the unconjugated antibody is humanized antibody huMAb4D5-8 or humanized 2C4.

30

40 ~~44~~. The method of claim ~~34~~ wherein said second antibody is conjugated with a cytotoxic agent.

40

41 ~~45~~. The method of claim ~~44~~ wherein the cytotoxic agent is a maytansinoid.

1

42 ~~46~~. The method of claim ~~55~~ wherein said treatment has an improved objective response rate compared to treatment with huMAb4D5-8 alone.

1

43 ~~47~~. The method of claim ~~55~~ wherein said treatment has a longer duration of response than treatment with huMAb4D5-8 alone.

1

44 ~~48~~. The method of claim ~~55~~ wherein said treatment results in increased survival of the mammal treated compared with treatment with huMAb4D5-8 alone.

49-54. (canceled)

1 ~~55~~. A method for the treatment of a tumor in a mammal, comprising the steps of (i) identifying said tumor as being characterized by overexpression of an ErbB2 receptor and as being a tumor that does not respond, or responds poorly, to treatment with an anti-ErbB2 antibody which binds to the 4D5 epitope and which has a growth inhibitory effect on SK-BR-3 cells, and (ii) administering to a mammal having said tumor a therapeutically effective amount of a conjugate of an anti-ErbB2 antibody which binds to the 4D5 epitope with a maytansinoid.